Abstract of the Disclosure

Aspects of the invention provide systems and methods for converting a digital image represented in a lower bit depth representation to a higher bit depth representation. A saturation region is identified, where a color model value of the pixels in the saturation region is above an upper saturation threshold or below a lower saturation threshold. The color model value for each pixel in the saturation region is then adjusted by a corresponding adjustment. The magnitude of the adjustment for each pixel is based on characteristics of the image data.